



TBPNews #116 – Dec. 10, 2007

>>>> Tunnel Boat Performance News >>>>>> (over 5000 members!)

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***** TBPNews *****

1) Selio Dominates UIM F1 GP of Abu Dhabi



United Arab Emirates – Sami Selio of Finland led all 50 laps of the Grand Prix of Abu Dhabi to move to within 16 points of Italian front runner Guido Cappellini with one race to go in the 2007 U.I.M. F1 World Championship.

The lead driver of the F1 Team Energy squad nosed ahead of the 9-time World Champion in the opening lap and never looked back, setting the fastest lap and going on to win by 11.79 seconds at the end of the 15th Annual event along the edge of the Arabian Gulf.

Cappellini, the native from Como, Italy and lead driver of the Tamoil Team pushed hard for the first few laps but got caught up when local driver Thani Al Qamzi passed him early on only to drop out on the 15th lap, losing out of any chance for the title while being the first of all three Emirates boats to drop out of the event before the thousands of disappointed fans who were looking for victory on their home waters. The 2.2 kilometer 8 turn race circuit continued to be a graveyard for boats as 11 drivers failed to finish in a yellow flag free event. Disappointing was the non start by much hyped American driver Shaun Torrente who failed to get his program sorted in time for his first race event after qualifying a fine 10th on the grid for the Miami, Florida native.

check out more at: f1boat.com

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2) FEATURE ARTICLE: The "Hump Zone"

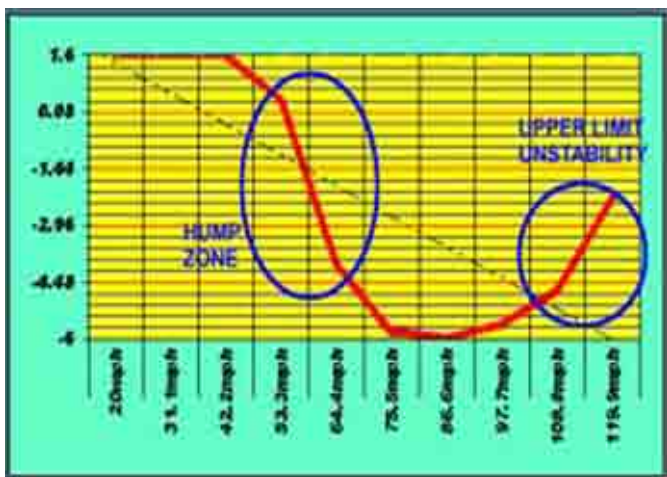
["Why does my boat porpoise?"]

Question from Member: "My ModVP style sport tunnel (with centerpod) has a real "hopping" motion at about 70 mph. It's like a porpoising, but it goes away at about 80mph. What is wrong with my setup?"

Answer: Well, this is a common trait of high-performance hulls, and tunnel boats in particular. I call this transition speed (between 75mph and 80mph on your boat setup the "hump zone". Seat time is the best way to learn how to drive thru....And caution is the word all the way! Learn slowly!

Often the reason a tunnel experiences a "porpoise" at a particular speed is quite simple. The tunnel hull gains it's performance from a unique balance between aerodynamic lift generated by the aerofoil/tunnel configuration, and the hydrodynamic lift generated by the running pads (on the water). The "hump" or "transition zone" occurs at a different velocity with each tunnel boat

and setup. The hump zone is unique to tunnel hulls, and represents the speed at which the amount of lift becomes predominantly aerodynamic (air lift from tunnel and aerofoil) compared to hydrodynamic (water lift from sponsons).



At the speed that the transition occurs, the hull will always experience some longitudinal instability - like porpoising (but not always in that form). The hull experiences a dynamic CofG shift through the "hump" zone. The transition velocity can be accurately determined for any given hull design and setup, and can even be altered by hull design, weight distribution, propeller selection and engine/hull setup. Engine height adjustment can help find the best setup to "smooth out" the transition. Sometimes unplanned 'hook' or 'rocker' in the running pad surfaces can exaggerate the performance effects thru the "hump zone". Weight movement will also change the speed at which the "hump zone" occurs.

The best tunnel designs actually minimize the "hump zone" to one that is very mild and through a narrow velocity range. This balance is usually done at the initial design stage. Once boat is designed/built, the best solution is to design the setup so that the hump zone occurs at a velocity that the driver does not need/intend to spend time in...in other words, you are just "passing through". Setup, trim and weight balance can help this allot.

The boat's reaction as it goes thru the hump zone (for a given design/setup) will always be the same, too. So driving/handling experience helps. The "effects" of the hump zone can be "softened" through design and setup changes, but will always be there. First the power to attain top performance of the hull needs to be available, then the boat has to be setup to be able to use the full power through to top performance.

That's why there is no substitute for 'seat-time' in any performance powerboat. There are design and setup optimizations that can be made to make the "hump zone" as smooth as possible - even comfortable - but you will always have to "drive-through" the hump zone, in one way or another. The more 'seat-time' in the boat - the more experience there is in knowing how your setup behaves as it passes through the transition.

See more Performance Articles at: aeromarineresearch.com/articles.html

Read more about Tunnel Boat design and setup in the world acclaimed "[Secrets of Tunnel Boat Design](#)" book

***** TBPNews *****

3) New Don Aronow Movie



Fox 2000 and director Tony Scott are teaming on a feature about Don Aronow. Don Aronow, credited as the inventor of the cigarette boat, was powerboat racing's world champ for 10 straight years.

Aronow was a self-made millionaire businessman and powerboat racing's world champ for 10 straight years. His cigarette boat became a favorite of Colombian drug smugglers looking to import their product into Miami in the 1980s. Aronow got a \$20 million contract to build boats for U.S. Customs agents to catch the smugglers. He was eventually gunned down in 1987 in a mob-style hit in Miami. Lerner teamed with partners Jeff Shapiro and Alan Hecht to option rights of Aronow's surviving son, Michael. Shapiro and Hecht will be exec producers.

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4) 2008 Unlimited Hydroplane Season Announced



The American Boat Racing Association today announced its schedule for the 2008 unlimited hydroplane season. A total of eight races are tentatively scheduled with Nashville possibly having two races on J. Percy Priest Lake at Nashville Shores.



The season opener scheduled for May 2-4 is a definite "go" with the potential of adding the second race to close the year on October 2-4.

- | | |
|---------------------------|---|
| Nashville, TN May 2-4 | Tri-Cities, WA July 25-27 |
| Evansville, IN June 27-29 | Seattle, WA August 1-3 |
| Madison, IN July 4-6 | San Diego, CA September 19-21 |
| Detroit, MI July 11-13 | Nashville, TN October 2-4 (Saturday Race) **Tentative |

Check out more at: abrahydroplanes.com

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5) New Record in Honda Formula 4-Stroke Race Series



ITV4 Fearless the 225 powerboat from the Honda Formula 4-Stroke Race Series celebrates victory with a new speed record of 68.24mph, set at the Powerboat Records Week in Lake Coniston. Rupert Pugh (driver) and Sophie Pugh (navigator) established a new national speed record for the F4SA series.

Coniston Powerboat Records Week is the only event in the Powerboat Racing Calendar to bring together all classes of boats. Entry is open to all from tiny hydroplanes, through inshore circuit racers to the largest offshore boats. It is the finale to the racing season. Competitors and officials from all over the country assemble annually for what has been a popular event since its inception in 1970.

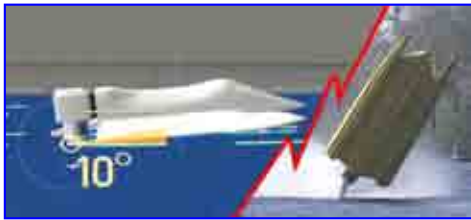
ITV4 Fearless ended the F4SA 2007 series on a high as they ripped up the waves at the Liverpool Dock to finish the championship event in 1st place bringing them 5th in the overall standings. Crowds witnessed the fight between Negotiator and Fearless, both from the Honda 225 class but the result was clear as Rupert and his navigator Danny Whitfield pushed on to claim top honours.

Check out more at: f4sa.com

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6) Powerboat Racing on TV

*** **"Thrill Zone: Extreme Powerboats"** - National Geographic powerboat show.



Author Jim Russell (Jimboat) is powerboat design technical consultant on a new National Geographic special for "Thrill Zone" series...

Details at: (channel.nationalgeographic.com)

check out next show date at: **Thursday Dec 20 2007** and Friday, December 28 2007

Watch for other show dates on AR's website! aeromarineresearch.com/NatGeo_thrill-zone.html

*** **"Champ Boat Grand Prix Series"** - on SPEED Channel - Check for next show at: www.champboat.com or at: www.speedtv.com

*** **"F1 World Championship TV Show"** on The Water Channel - Check it out at: www.waterchannel.com; [see web site for other show times]

*** **NEW "War On Water" TV Show** on The Water Channel - Check it out at: www.waterchannel.com; [see web site for other show times]

